AMENDMENTS TO THE CLAIMS

1. (CURRENTLY AMENDED) A reagentless whole-blood analyte detection system capable of being deployed near a patient comprising:

a source capable of emitting a beam of radiation comprising a spectral band having a center wavelength;

a detector in an optical path of the beam;

a housing configured to house the source and the detector; and

a sample element situated in the optical path of the beam and configured to be filled with a sample, the sample element comprising:

a sample cell wall that does not eliminate transmittance of the radiation in the spectral band; and

a sample cell;

further comprising a filtering system in the optical path of the beam, the filtering system configured to transmit the spectral band of radiation;

wherein the filtering system is configured to transmit radiation at least at about one of the following center wavelengths: 4.2 μm, 5.25 μm, 6.12 μm, 7.4 μm, 8.0 μm, 8.45 μm, 9.25 μm, 9.65 μm, 10.4 μm, 12.2 μm.

2. (ORIGINAL) The whole-blood system of Claim 1, wherein the sample element is configured to be advanced into the housing.

3. (ORIGINAL) The whole-blood system of Claim 1, wherein the sample cell is oriented about vertically.

4. (ORIGINAL) The whole-blood system of Claim 1, wherein the sample cell is oriented about horizontally.

5. (ORIGINAL) The whole-blood system of Claim 1, wherein the sample element comprises a cuvette.

6. (ORIGINAL) The whole-blood system of Claim 1, wherein the sample element comprises a test strip.

7. (ORIGINAL) The whole-blood system of Claim 1, wherein the sample element comprises a disposable test strip.

8. (ORIGINAL) The whole-blood system of Claim 7, wherein the disposable test strip is configured for a single use.

9. (ORIGINAL) The whole-blood system of Claim 7, wherein the disposable test strip is configured for at least one use.

10. (CURRENTLY AMENDED) The whole-blood system of Claim 1, wherein the ~~near-patient-test-~~system is configured to be used by a patient.

11. (CURRENTLY AMENDED) The whole-blood system of Claim 1, wherein the ~~near-patient-test-~~system is configured to be used by a medical practitioner.

12. (CURRENTLY AMENDED) The whole-blood system of Claim 1, wherein the ~~near-patient-test-~~system is configured to be used in a clinical setting.

13. (ORIGINAL) The whole-blood system of Claim 1, wherein the sample element is configured to receive blood that has been withdrawn from the patient but that has not been otherwise processed.

14. (CANCELLED)

15. (CURRENTLY AMENDED) The whole-blood system of Claim ~~14~~1, wherein the filtering system further comprises a tunable filter.

16. (CURRENTLY AMENDED) The whole-blood system of Claim ~~14~~1, wherein the filtering system is configured to transmit the spectral band of radiation between about 0.8 μm and about 2.5 μm.

17. (CURRENTLY AMENDED) The whole-blood system of Claim ~~14~~1, wherein the filtering system is configured to transmit the spectral band of radiation between about 2.5 μm and about 20 μm.

18. (CURRENTLY AMENDED) The whole-blood system of Claim ~~1~~41, wherein the filtering system is configured to transmit the spectral band of radiation between about 20 μm and about 100 μm.

19. (CURRENTLY AMENDED) The whole-blood system of Claim ~~1~~41, wherein the filtering system is configured to transmit radiation at least at one spectral band between about 3.5 μm and about 14 μm.

20. (CANCELLED)

21. (ORIGINAL) The whole-blood system of Claim 1, wherein the sample element comprises an optical pathlength of less than about 1.22 mm.

22. (ORIGINAL) The whole-blood system of Claim 1, wherein the sample element comprises an optical pathlength of less than about 100 μm.

23. (ORIGINAL) The whole-blood system of Claim 1, wherein the sample element comprises an optical pathlength of less than about 80 μm.

24. (ORIGINAL) The whole-blood system of Claim 1, wherein the sample element comprises an optical pathlength between about 1 μm and about 50 μm.

25. (ORIGINAL) The whole-blood system of Claim 1, wherein the sample element comprises an optical pathlength between about 15 μm and about 35 μm.

26. (ORIGINAL) The whole-blood system of Claim 1, further comprising a sample extractor.

27. (CURRENTLY AMENDED) The whole-blood system of Claim 26, wherein the sample extractor is selected from the group consisting of: a lance, laser lance, single-motion lance, iontophoretic sampler, gas-jet perforator, fluid-jet perforator, and~~or~~ particle-jet perforator.

28. (ORIGINAL) The whole-blood system of Claim 26, wherein the sample element further comprises an opening in fluid communication with the sample cell, and the sample extractor is positioned so that it creates a wound proximate the opening.

29. (ORIGINAL) The whole-blood system of Claim 1, wherein the sample cell wall comprises polyethylene.

30. (ORIGINAL) The whole-blood system of Claim 1, wherein the sample cell wall comprises polypropylene.

31. (ORIGINAL) The whole-blood system of Claim 1, wherein the sample cell wall comprises a polymer having an isotactic structure.

32. (ORIGINAL) The whole-blood system of Claim 1, wherein the sample cell wall comprises a polymer having an atactic structure.

33. (ORIGINAL) The whole-blood system of Claim 1, wherein the sample cell wall comprises a polymer having a syndiotactic structure.

34. (ORIGINAL) The whole-blood system of Claim 1, wherein the sample cell wall comprises a material configured to enhance flow of the sample.

35. (ORIGINAL) The whole-blood system of Claim 1, wherein the sample element is configured to be advanced automatically into the housing.

36. (ORIGINAL) The whole-blood system of Claim 1, wherein the sample element is configured to be advanced manually into the housing.

37. (CURRENTLY AMENDED) A[[n]] reagentless whole-blood analyte detection system capable of being deployed near a patient comprising:

a radiation generating system comprising a filter and a source capable of generating electromagnetic radiation in at least one spectral band between about 4.2 μm and about 12.2 μm;

an optical detector positioned in the optical path of the spectral band of radiation responsive to the spectral band of radiation to generate at least one signal;

a signal processor configured to receive the signal, to process the signal and to generate an output;

a display configured to receive the output;

a sample extractor; and

a portable housing configured to house at least partially each of the radiation generating system, the optical detector, the signal processor, and the sample extractor, the housing adapted to house a sample element having at least one optically transmissive portion.

38. (CURRENTLY AMENDED) The whole-blood system of Claim 37, wherein the sample extractor is selected from the group consisting of: a lance, laser lance, single-motion lance, iontophoretic sampler, gas-jet perforator, fluid-jet perforator, and~~or~~ particle-jet perforator.

39. (ORIGINAL) The whole-blood system of Claim 37, wherein the display comprises an audible display.

40. (ORIGINAL) The whole-blood system of Claim 37, wherein the display comprises a visual display.

41. (ORIGINAL) The whole-blood system of Claim 37, wherein the display is a separable device.

42. (ORIGINAL) The whole-blood system of Claim 41, wherein the separable device is a portable computing device.

43. (CANCELLED)

44. (CANCELLED)

45. (CANCELLED)

46. (CANCELLED)

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48. (CANCELLED)

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50. (CANCELLED)

51. (WITHDRAWN)

52. (WITHDRAWN)

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61. (WITHDRAWN)

62. (CURRENTLY AMENDED) A method for reagentless whole-blood analyte detection comprising:

providing a source, a detector in an optical path of the source, a housing configured to house the source and the detector, and a sample element comprising a sample cell and an optical pathlength;

drawing a sample of fluid from a portion of tissue;

positioning an opening of the sample element adjacent the sample of fluid so that the fluid is drawn into the sample element;

positioning the sample element in the housing so that the sample cell is in the optical path of the source;

emitting an emitted radiation beam comprising at least one spectral band having a center wavelength from the source to the sample cell of the sample element; ~~and~~

detecting a transmitted radiation beam comprising the radiation transmitted through the sample element; and

filtering the emitted radiation beam to transmit at least the spectral band of radiation;

wherein the filtering is performed to transmit radiation at least at about one of the following center wavelengths: 4.2 μm, 5.25 μm, 6.12 μm, 7.4 μm, 8.0 μm, 8.45 μm, 9.25 μm, 9.65 μm, 10.4 μm, 12.2 μm.

63. (ORIGINAL) The method of Claim 62, wherein the housing is configured to be portable.

64. (ORIGINAL) The method of Claim 62, wherein the sample of fluid is a sample of whole-blood.

65. (ORIGINAL) The method of Claim 62, wherein the optical pathlength of the sample cell is less than about 1.22 mm.

66. (ORIGINAL) The method of Claim 62, wherein the optical pathlength of the sample cell is less than about 100 μm.

67. (ORIGINAL) The method of Claim 62, wherein the optical pathlength of the sample cell is less than about 80 μm.

68. (ORIGINAL) The method of Claim 62, wherein the optical pathlength of the sample cell is between about 1 μm and about 50 μm.

69. (ORIGINAL) The method of Claim 62, wherein the optical pathlength of the sample cell is between about 15 μm and about 35 μm.

70. (CURRENTLY AMENDED) The method of Claim 62, wherein the sample element further comprises an opening in fluid communication with the sample cell~~, and wherein the slicing step is performed proximate the opening~~.

71. (CANCELLED)

72. (CURRENTLY AMENDED) The method of Claim ~~71~~62, wherein the filtering is performed by a tunable filter.

73. (CURRENTLY AMENDED) The method of Claim ~~71~~62, wherein the filtering is performed to transmit radiation between about 0.8 μm and about 2.5 μm.

74. (CURRENTLY AMENDED) The method of Claim ~~71~~62, wherein the filtering is performed to transmit radiation between about 2.5 μm and about 20 μm.

75. (CURRENTLY AMENDED) The method of Claim ~~71~~62, wherein the filtering is performed to transmit radiation between about 20 μm and about 100 μm.

76. (CURRENTLY AMENDED) The method of Claim ~~71~~62, wherein the filtering is performed to transmit radiation between about 3.5 μm and about 14 μm.

77. (CANCELLED)

78. (CANCELLED)

79. (CANCELLED)

80. (CANCELLED)

81. (CANCELLED)

82. (CANCELLED)

83. (WITHDRAWN)

84. (WITHDRAWN)

85. (WITHDRAWN)

86. (WITHDRAWN)

87. (WITHDRAWN)

88. (WITHDRAWN)

89. (CANCELLED)

90. (CANCELLED)

91. (CANCELLED)

92. (CANCELLED)

93. (CANCELLED)

94. (CANCELLED)